alternative is to remove pocket **160** and place the sash in the fully raised position before the front face is sealed with plastic. In the latter two cases the pocket **160** may be placed inside the cabinet so that it will be decontaminated. In all three cases effective decontamination is accomplished without the need to actually remove the sash.

As can be seen in FIG. **10**, there is no physical contact with the back of sash **42** and the prior art wiping seal has been eliminated. In order to insure that contaminated air from the work area **44** does not escape into the room a plurality of upper scavenger holes **168** are provided immediately above work area **44** along the front of cabinet **10**. Any air leaving environment **44** will be drawn back through holes **168** and will not be leaked into the room. While the use of scavenger holes in this location has been taught by prior art constructions, it has been discovered that the effectiveness of these holes **168** is greatly enhanced if structure is provided to insure that the area in front of these holes will be a uniform negative pressure area relative to the work area **44**. To this end a restrictor plate **172** is coupled between air diffuser plate **43** and a filter shelf **170** used to hold supply filter **32** in place. Restrictor plate **172** is preferably held in place with a series of screws **174**. The location of plate **172** may be altered by loosening screws **174** and sliding the plate inwardly or outwardly. By adjusting the location of plate **172** the balance between air flow down into the work area and air flow passing through the exhaust is maintained in favor of exhaust air. Plate **172** serves to even out any pressure differences in the area of holes **168** resulting from the competing air flows and the fact that the holes are interrupted with solid areas. This insures that air will flow into the holes and out the exhaust rather than out into the room in the area behind the sash. It is to be understood that holes **168** extend across the entire front of the cabinet to insure that the entire back side of the sash is effectively "sealed" against contaminate air entering the room.

As can be seen from the above, the invention provides a biological safety cabinet with a number of improved features and achieves a better air-flow into and through the cabinet. From the foregoing, it will be seen that this invention is one well adapted to attain all of the ends and objects herein above set forth, together with other advantages which are inherent to the structure. It will be understood that certain features and subcombinations are of utility and may be employed without reference to other features and subcombinations. This is contemplated by and is within the scope of the claims.

Since many possible embodiments may be made of the invention without departing from the scope thereof, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described the invention, what is claimed is:

1. A biological safety cabinet, comprising:

a frame defining a protected work area, said work area being enclosed on all but a front face, said work area including a pair of spaced interior side walls;

a sash coupled to said frame, said sash at least partially enclosing the open front face of said work area;

a blower coupled to said frame generally above said work area, said blower being adapted to circulate air through said work area; and

a sash grill coupled to said frame generally below said sash, said sash grill having a curved top surface, a plurality of first perforations through said top surface, and a plurality of second perforations through said top surface, said second perforations being located generally adjacent each of said side walls, said first and second perforations allowing air to flow through said sash grill,

wherein the curved sash grill promotes smooth air flow into said work area, thereby better containing any harmful materials.

2. The biological safety cabinet of claim **1**, the safety cabinet further comprising a pair of spaced side trim panels, one of said trim panels being located adjacent each of said side walls of said work area, said side trim panels forming an obtuse angle with respect to said side walls thereby promoting smooth flow of room air into said work area.

3. The biological safety cabinet of claim **1**, wherein said sash has a handle coupled thereto along the lower-most surface thereof, said handle having a top surface adjacent said sash, a rear surface facing said work area and a front surface extending between the top and rear surfaces, said front surface of said handle being oriented at an acute angle relative to said rear surface to allow air entering said work area along said front surface to more smoothly interface with the air traveling downwardly along said rear surface.

4. The biological safety cabinet of claim **1**, wherein said sash has a handle coupled thereto along the lower-most surface thereof, said handle having a top surface adjacent said sash, a rear surface facing said work area and a front angled surface extending between the top and rear surfaces, said angled front surface allowing air entering said work area along said front surface to more smoothly interface with the air traveling downwardly along said rear surface.

5. A biological safety cabinet, comprising:

a frame, said frame having outer walls and inner walls, said inner walls being spaced from said outer walls, said inner walls defining a protected work area, said work area being enclosed on all but a front face;

a sash coupled to said frame, said sash at least partially enclosing the front face of said work area;

a blower coupled to said frame generally above said work area, said blower being adapted to circulate air through said work area; and

a pressure gauge mounted on one of said inner walls and located within said work area, said pressure gauge adapted to measure a positive pressure environment created by said blower above said work area,

wherein any leaks in said pressure gauge will be contained within said work area.

6. The biological safety cabinet of claim **5**, further comprising a supply filter forming a ceiling for said work area; said blower directing air through said supply filter, said supply filter being adapted to remove contaminants from the air flowing therethrough, and a plenum box located between said supply filter and said blower, said pressure gauge being adapted to measure the pressure within said plenum box.

7. The biological safety cabinet of claim **6**, wherein one of said inner walls is a rear baffle plate defining the rear wall of said work area and wherein said pressure gauge is mounted in said baffle plate.

8. The biological safety cabinet of claim **7**, wherein said sash is transparent, and wherein said pressure gauge is mounted at a location viewable through said sash.

9. A biological safety cabinet, comprising:

a frame defining a protected work area enclosed on all but a front face, said work area including a rear baffle, opposing side walls, a ceiling and a bottom surface, said baffle being spaced above said bottom surface;

a sash coupled to said frame, said sash at least partially enclosing the front face of said work area;

a blower coupled to said frame above said ceiling of said work area, said blower being adapted to circulate air through said work area;

a rear panel located behind said baffle of said work area, said rear panel spaced from said baffle to create a void through which air can flow; and

a perforated towel catch extending between a lower-most edge of said baffle and said rear panel, said towel catch being closer to said bottom surface at said rear panel than at said baffle,

wherein said towel catch may be visually inspected for blockage through said open front face of the safety cabinet.

10. The biological safety cabinet of claim **9**, further comprising a removable work surface spaced above said bottom surface, said work surface concealing said towel catch from view when in place within said work area.

11. The biological safety cabinet of claim **10**, wherein said towel catch is oriented at an acute angle with respect to said bottom surface.

12. The biological safety cabinet of claim **11**, wherein said towel catch is removably coupled to said baffle.

13. The biological safety cabinet of claim **12**, further comprising a pressure gauge coupled to said baffle, said pressure gauge adapted to measure a positive pressure environment created by said blower above said work area, wherein any leaks in said pressure gauge will be contained within said work area.

14. The biological safety cabinet of claim **10**, further comprising a sash grill coupled to said frame generally below said sash, said sash grill having a curved top surface, wherein the curved sash grill promotes smooth air flow into said work area and containment of harmful materials.

15. A biological safety cabinet, comprising:

a frame defining a protected work area, said work area being enclosed on all but a front face;

a sash coupled to said frame, said sash at least partially enclosing the front face of said work area, said sash being moveable to allow access to said work area;

a blower coupled to said frame above said work area, said blower being adapted to circulate air through said work area;

a sash pocket coupled to the exterior of said frame generally above said work area and above said sash, said sash pocket being enclosed on all but a lower end thereof, said sash extending into said lower end of said sash pocket;

a front panel coupled to said frame above said work area and in front of said blower, said sash pocket being coupled to said front panel, said sash being spaced outwardly away from said front panel, and wherein said front panel includes a plurality of holes extending therethrough above said work area, said holes providing fluid communication between the exterior of the safety cabinet and the interior thereof,

wherein said sash pocket provides a protective housing for said sash when said sash is moved upwardly away from said work area.

16. The biological safety cabinet of claim **15**, wherein said sash is spaced away from said work area, allowing fluid communication between said work area and the exterior of the safety cabinet, the cabinet firther comprising a deflector plate coupled to said frame at the upper end of said work area, said deflector plate extending towards said sash and being spaced away therefrom, said deflector plate operating to maintain a uniform negative pressure in the area of said holes thereby insuring a uniform flow of air into said holes.

17. The biological safety cabinet of claim **16**, further comprising a front cover coupled to said frame, said cover extending over said sash pocket and said front panel to remove said sash pocket and said front panel from view.

18. A biological safety cabinet, comprising:

a frame defining a protected work area enclosed on all but a front face, said work area having a back wall, opposing side walls, a ceiling and a bottom surface;

a blower coupled to said frame above said ceiling of said work area, said blower being adapted to circulate air through said work area;

a supply filter forming said ceiling of said work area,

said blower directing air through said supply filter, said supply filter being adapted to remove contaminants from the air flowing there through;

a plenum box located between said supply filter and said blower; and

a distribution baffle located within said plenum box and extending generally across said plenum box, said distribution baffle being mounted with a first end located adjacent an output region of said blower and being angled upwardly as said baffle extends away from said blower,

wherein said distribution baffle operates to evenly distribute the air flowing from said blower across said supply filter.

19. The biological safety cabinet of claim **18**, further comprising a pair of curved deflector plates mounted within said plenum box, one of said deflector plates being mounted on each side of said box and oriented to direct air flowing within said box downwardly.

20. The biological safety cabinet of claim **18**, further comprising an exhaust filter coupled to said frame above said plenum box, said exhaust filter being in fluid communication with the exterior of the cabinet and with the plenum box, said exhaust filter being adapted to remove contaminants from the air passing there through prior to being exhausted.

21. The biological safety cabinet of claim **20**, further comprising an exhaust filter frame coupled to said frame and adapted to hold said exhaust filter, said exhaust filter frame having a sealing mechanism coupled thereto and coupled to said plenum box, said sealing mechanism including a threaded member mounted between said filter frame and said plenum box, said member being adapted to turn to move said frame upward and place an upward force on said exhaust filter while placing a downward force on said plenum box and said supply filter.

22. An exhaust control cap for a biological safety cabinet having an exhaust port, said control cap comprising:

an enclosure for said exhaust port, said enclosure having sides projecting above the top of said cabinet;

at least one side panel presenting a plurality of apertures therein;

a top panel extending over said sides and covering the top of said enclosure; and

a plurality of plugs shaped to extend over a selected aperture, wherein said plugs may be placed over selected apertures to control the flow of air through the control cap,

wherein air exhausted from said cabinet is directed outwardly through said apertures not covered with said plugs.

23. The exhaust control cap of claim **22**, wherein said enclosure is generally rectangular and has four of said side panels, each having apertures therein.

24. The exhaust control cap of claim 23, wherein the apertures within the side panels are round and are varied in diameter.

25. An exhaust control cap for a biological safety cabinet having an exhaust port and an associated exhaust control system, said control cap comprising:

an enclosure for said exhaust port, said enclosure having sides projecting above the top of said cabinet, said enclosure being coupled with said exhaust control system;

an apertured plate coupled with said enclosure and intersecting the flow of air; and

a plurality of plugs shaped to extend over a selected aperture within said apertured plate, wherein said plugs may be placed over selected apertures to control the flow of air through the control cap,

wherein said apertured plate controls the flow of air exhausted from the cabinet and into said exhaust control system.

26. The exhaust control cap of claim 25, wherein the apertures within said apertured plate are round and are varied in diameter.

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